

SN. 10/074,582

ATTORNEY DOCKET NO. KIOI:021

REMARKS

Claims 1-3 remain pending in this application for which applicants seek reconsideration.

Amendment

Claim 1 has been amended to emphasize that the orifice passage is formed at the nozzle portion of the solenoid valve and that the supply passage is formed at the valve body. No new matter has been introduced.

Art Rejection

Claims 1-3 were rejected under 35 U.S.C. § 102(b) as anticipated by Franz (USP 6,079,435). Applicants traverse this rejection because Franz does not disclose the claimed orifice port configuration.

Claim 1 calls for a valve body (10) having a fluid supply passage (11) and a fluid output passage (14) substantially arranged in-line. A two-way solenoid valve (30) is mounted to the valve body (10). The solenoid valve (30) has a nozzle portion (31) interposed between the supply passage and the output passage. The nozzle portion has an orifice port (43) that has a smaller diameter than that of the supply passage. Because the orifice port (43) is formed at the nozzle portion (31) instead of the valve body (10), the output pressure characteristics can easily be adjusted as needed by simply replacing the solenoid valve (30) from the valve body (10). As explained in the previous reply, the oil pressure in the output passage (14) is controlled with the solenoid valve (30), namely by draining fluid through its drain port (41). The pressure in the output passage needs to be somewhat isolated from the pressure from the supply passage so that the pressure from the supply passage does not significantly affect the pressure in the supply passage. The smaller sized orifice port (43) restricts the transmission of pressure between the supply and output passages, while allowing passage of fluid.

The examiner asserts that Franz's reduced diameter bore into which the restrictor 38 extends corresponds to the claimed smaller bore orifice port. Applicants disagree with this assessment for two reasons. First, Franz's reduced diameter bore is not formed at its nozzle

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portion (30), but rather at its lower housing (14), which corresponds to the claimed valve body according to the examiner. This difference alone overcomes the anticipation rejection. Second, Franz's reduced diameter bore CANNOT form an orifice that regulates pressure because its size is identical to the size of the horizontal passageway formed in its nozzle portion 30. Accordingly, Franz has to resort to an adjustable restrictor 38 disposed in line with the horizontal supply passage to isolate the pressures in the supply and output passages. Franz thus would not have disclosed or taught the claimed invention within the meaning of §§ 102, 103.

Conclusion

Applicants submit that claims 1-3 patentably distinguish over the applied reference and are in condition for allowance. Should the examiner have any issues concerning this reply or any other outstanding issues remaining in this application, applicants urge the examiner to contact the undersigned to expedite prosecution.

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Respectfully submitted,

  
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